REMARKS

The Examiner has rejected claims 1 through 20. In view of the above amendments and the following remarks, Applicant respectfully submit to the Examiner to reconsider the pending rejections.

The Section 102 Rejections

The Examiner has rejected claims 1 through 20 under 35 U.S.C. §102(b) as allegedly being anticipated by the Adams, Jr. et al. reference. The Examiner has alleged that the Adams, Jr. et al. reference discloses every element of independent claims 1, 12 and 20. In response to the above rejections, Applicant has amended each of the independent claims.

Newly amended independent claims 1, 12 and 20 each explicitly recite "determining a continuous direction . . . between a horizontal direction and a vertical direction." Newly amended independent claims 1, 12 and 20 each further explicitly recite "adjusting a RGB conversion matrix of orientation-sensitive correction coefficients based upon the direction." In other words, the amended independent claims now require that the RGB conversion coefficients are adjusted based upon a continuously determined direction of "the abrupt intensity gradients of RGB data."

In sharp contrast to the above explicitly recited requirements, the Adams, Jr. et al. reference discloses an adaptive color plane interpolation in a single sensor color electronic camera. Green pixels are adaptively interpolated either horizontally, vertically or two-dimensionally depending upon the gradients, Laplacian second-order values and color difference bias values established from the neighboring pixel locations in the vertical and horizontal directions around the missing green pixel. (lines 31 through 36, column 4). As disclosed at line 40, column 6 through line 1, column 7, the value of G5 is selected to be one of the A, F, H and V values based upon the gradient direction as

indicated by the relationship between h and v. In other words, the G5 value is selected from one of the four values. Similarly, as disclosed at lines 26 through 56, column 8, the RB values are selected from one of the three values that include A5N, A5P and A5A. To summarize, the interpolative adjustment in the Adams, Jr. et al. reference is limited to one of a predetermined number of values.

As already quoted from newly amended independent claims 1, 12 and 20, the interpolative adjustment is "continuous" by adjusting a RGB conversion matrix of orientation-sensitive correction coefficients based upon the direction." The above patentable features have been supported by Equations (9) and (10) in the original disclosure for the fourth preferred embodiment on pages 17 and 18 of the current application. The direction D of the claimed invention results in a continuous number as opposed to be one of a predetermined number of values in the cited reference. Thus, no new matter has been added to the current application by the above the current amendments to the pending independent claims.

Because of the above new patentable features, Applicant believes that newly amended independent claims 1, 12 and 20 is no longer anticipated by the Adams, Jr. et al. reference. Dependent claims 2 through 11 and 13 through 19 ultimately depend from either of newly amended independent claims 1 or 12 and incorporate the above described patentable features of the current invention. Therefore, Applicant respectfully submits to the Examiner that the rejections of claims 1 through 20 should be withdrawn.

Conclusion

In view of the above amendments and the foregoing remarks, Applicant respectfully submits that all of the pending claims are in condition for allowance and respectfully request a favorable Office Action so indicating.

Respectfully submitted,

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FIG. 1
(PRIOR ART)

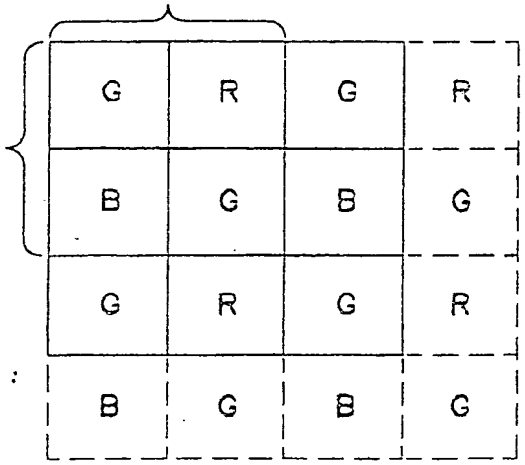

FIG. 6
(PRIOR ART)

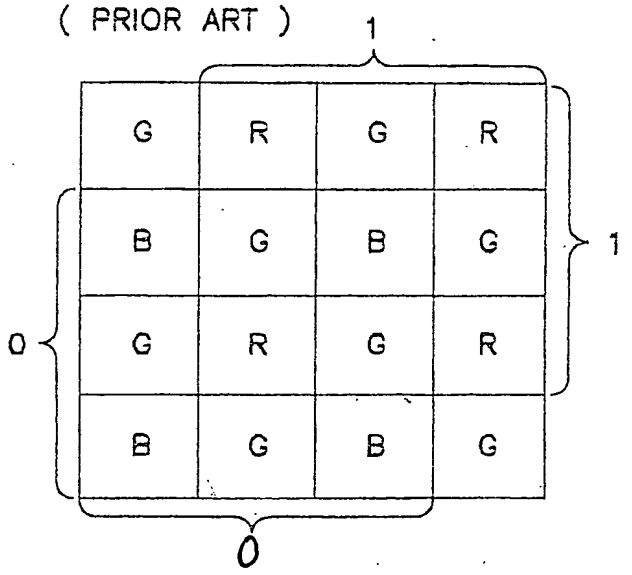

FIG. 5